IN THE CLAIMS

1. (currently amended) A coil arrangement for a medical imaging system, the coil arrangement comprising:

a plurality of coil elements for a medical imaging system; and

a plurality of twisted portions in combination with ~~at least one of~~ the plurality of coil elements, and wherein a twisted portion is provided between each adjacent coil element of the plurality of coil elements.

2. (original) A coil arrangement in accordance with claim 1 wherein the plurality of coil elements comprise at least one saddle coil element.

3. (original) A coil arrangement in accordance with claim 1 wherein the plurality of coil elements comprise at least one each of a saddle coil element and a loop coil element.

4. (original) A coil arrangement in accordance with claim 1 wherein the plurality of coil elements comprise at least one saddle coil element and at least one loop coil element and together with the plurality of twisted portions forms a saddle train coil array.

5. (original) A coil arrangement in accordance with claim 1 wherein the plurality of coil elements are configured to be combined.

6. (original) A coil arrangement in accordance with claim 1 wherein the plurality of coil elements comprise a plurality of overlapping loop coil elements.

7. (original) A coil arrangement in accordance with claim 1 wherein the plurality of coil elements comprise a plurality of non-overlapping loop coil elements.

8. (original) A coil arrangement in accordance with claim 1 wherein the medical imaging system comprises a magnetic resonance imaging (MRI) system and the coil elements comprise resonant surface coils.

9. (original) A coil arrangement in accordance with claim 1 wherein the plurality of twisted portions are each configured in a cross-over arrangement.

10. (original) A coil arrangement in accordance with claim 9 wherein the cross-over arrangement is configured to provide phase encoding information.

11. (original) A coil arrangement in accordance with claim 1 wherein the plurality of coil elements comprise at least one each of a saddle coil element and a loop coil element, and wherein the saddle coil element is positioned generally in about the middle of the coil arrangement.

12. (currently amended) A coil array for a medical imaging system, the coil array comprising:

a first coil array portion having a plurality of coil elements for a medical imaging system; and

a second coil array portion having a multi-lobe saddle train, the multi-lobe saddle train comprising a plurality of twisted portions and wherein a twisted portion is provided between each adjacent lobe of the multi-lobe saddle train.

13. (original) A coil array in accordance with claim 12 wherein the first coil array portion comprises a plurality of loop coil elements.

14. (original) A coil array in accordance with claim 12 wherein the multi-lobe saddle train further comprises at least one saddle coil.

15. (original) A coil array in accordance with claim 12 wherein the first and second coil array portions are configured to be combined.

16. (original) A coil array in accordance with claim 12 wherein the first and second coil array portions together form a coil array configured to be used in combination with other coil arrays.

17. (original) A coil array in accordance with claim 12 wherein the first coil array portion is positioned adjacent the second coil array portion.

18. (original) A coil array in accordance with claim 12 wherein the medical imaging system comprises a magnetic resonance imaging (MRI) system and the coil array portions comprise resonant surface coils.

19. (original) A coil array in accordance with claim 12 wherein the first coil array portion comprises at least one loop coil element and the plurality of twisted portions are configured having a cross-over arrangement, with the at least one loop coil element generally centered in relation to the cross-over arrangement.

20. (currently amended) A method for providing coil arrays for a medical imaging system, the method comprising:

configuring a coil array to include a plurality of twisted portions in combination with a plurality of coil elements; and

providing a twisted portion between each adjacent coil element of the plurality of coil elements.

21. (original) A method in accordance with claim 20 further comprising forming a saddle train with the plurality of twisted portions.